MEMORANDUM

To:	Chris Kehoe, AICP, Deputy Director, DOTS, Planning Town of Cortlandt
From:	Laura Lefebvre, TRC and Matthew Regan, TRC
Subject:	Proposed Scope of Biodiversity Assessment CVE North America - Cortlandt Mill Solar Farm PB-2020-9
Date:	February 4, 2021
CC:	Carson Weinand, CVE North America Steven Meersma, TRC Valerie Mitchell, TRC

1.0 Introduction

CVE North America (CVE) proposes to construct and operate the Cortlandt Mill Solar Farm, a 5.0 megawatt (MW) alternate current (AC)/5.3-MW direct current solar generating facility and a battery energy storage system (Project) on property located in the Town of Cortlandt, Westchester County, New York. The Project Site consists of two parcels totaling 43.12 acres: a 38.67-acre parcel west of Lexington Avenue (Parcel ID: 13.18-2-2.4) and a 4.45-acre parcel off Red Mill Road (Parcel ID: 13.14-5-25) in the Town of Cortlandt, Westchester County, New York.

On behalf of CVE, TRC is writing this memorandum in response to Mr. Chris Kehoe, AICP's, memorandum to the Planning Board dated November 18, 2020, comment number 8, which stated that "the Planning Board should consider the need for a Bio-Diversity study as per the Town's bio-diversity guidance (attached)," as well as the conference calls with the Town Staff on December 18, 2020; January 28, 2021; and follow up discussions with the CVE Project team. The Town's guidelines document is titled "Wildlife and Plant Biodiversity Assessments, Town of Cortlandt Planning Board adopted 5/7/02" (referred to hereafter as Biodiversity Assessment guidelines).

As requested by the Town staff, this memorandum outlines TRC's proposed approach to conducting a Biodiversity Assessment. This memorandum includes a summary of previous ecological surveys and assessments completed at the Project site (including the previous Biodiversity Study, on page 3), TRC's proposed assessment and recommended follow up surveys, and conclusions.

2.0 Previous Ecological Surveys

A wetland and stream delineation; preliminary tree survey; and desktop screening for rare, threatened, and endangered species were conducted by TRC at the Project Site. A biodiversity study was conducted

at the Project Site under a different site plan application. A summary of these previous surveys is provided below.

Wetland and Stream Delineation - 2019 and 2020

On behalf of CVE, TRC's field senior ecologist Matthew Regan conducted a wetland and stream delineation of the Project Site on October 7, 2019 and November 1, 2019, and identified two wetlands and one stream. Both wetlands delineated at the Project Site coincide with a mapped Class II New York State Department of Environmental Conservation (NYSDEC) freshwater wetland (A-50). The Project has been designed to completely avoid the stream and wetlands onsite and no activities regulated under Chapter 179 (Freshwater Wetlands, Waterbodies, and Watercourses) of the Town Code will occur during the installation of the Project. The Project will comply with Chapter 179 of the Town Code, which states:

> *It is the intent of this chapter to provide for the integrity of the biodiversity of the Town's wetlands, water bodies and watercourses, by providing and protecting appropriate habitats for its natural wildlife and plants, especially rare, endangered, and threatened species.*

Work will occur outside of the 100-foot adjacent area around the wetlands. No Project components or construction activity will occur within 100 feet of the wetlands. Temporary erosion and sediment controls shall be used to reduce erosion, sedimentation, and pollutants in stormwater discharges, and to prevent impacts to wetlands and waterbodies. A Stormwater Pollution Prevention Plan (SWPPP) for the Project has been prepared in accordance with New York State Standards for Erosion and Sediment Control and the Stormwater Management Design Manual and the requirements for review under Chapter 262 (Stormwater Management and Erosion and Sediment Control) of the Town Code. A Notice of Intent will be submitted to the NYSDEC, certifying that the Project complies with the technical requirements of the State Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Construction (Permit No. GP-0-20-001).

The Town's wetland consultant, HVEA Engineers, field-verified TRC's wetland delineation on October 5, 2020. HVEA Engineers made minor adjustments to TRC's wetland delineation and these minor adjustments will be incorporated into the Project Site Plan to ensure that no Project components or construction activity will occur within 100 feet of the wetlands. The results of HVEA Engineers' site visit were detailed in a memorandum to the Planning Board, emailed on October 21, 2020.

Tree Survey - 2020

The Project will result in the conversion of +/- 19 acres of upland forest to meadows planted with a native pollinator seed mix. Under Chapter 283 (Trees) of the Town Code, no one shall either purposefully or negligently cut down, kill, clear cut, top, or otherwise destroy any tree without a permit to conduct such activities. Since the Project is expected to remove more than four trees from the Project Site, a permit satisfying the requirements set forth in Chapter 283 must be obtained from the Town Board as the permit granting authority of the Special Permit required under Chapter 255 (Solar Energy Systems) of the Town Code.

The Town's tree consultant, Bartlett Tree Experts, conducted a tree inventory in accordance with Chapter 283 of the Town Code. The tree inventory documented 3,808 trees over 4 inches in diameter at breast

height within 50 feet of the proposed limits of disturbance at the Project Site. The results of Bartlett Tree Experts' tree inventory were submitted to the Planning Board on November 13, 2020.

Rare, Threatened, and Endangered Species Screening - 2020

TRC consulted with the New York Natural Heritage Program. The NYNHP January 28, 2020 response indicates that there are no records of rare or state-listed animals or plants, or significant natural communities at the Project Site or in its immediate vicinity.

TRC consulted the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) for federally listed species within the vicinity of the Project Site. The USFWS IPaC Unofficial Species List, dated February 1, 2021, identifies the Indiana bat (*Myotis sodalis*; state and federally endangered) and bog turtle (*Clemmys muhlenbergii*; state endangered and federally threatened), as potentially being in vicinity of the Project Site.

Biodiversity Study - 2005

The Town of Cortland Deputy Planning Director, Chris Kehoe, AICP, asked that the Planning Board consider the need for a biodiversity study, due to the amount of proposed tree removal for the Project, in a memorandum dated November 18, 2020.

The Planning Board adopted guidelines for Wildlife and Plant Biodiversity Assessments in 2002. The purpose of these biodiversity assessments is to provide the Town with baseline, site-specific information to help the Town with land use planning while maintaining biodiversity. The guidelines specify target areas where biodiversity studies are required for development applications. These target areas include areas along river and stream corridors; in the vicinity of lakes, ponds, and wetlands; adjacent to areas of open space; and adjacent to corridors of open space.

In 2005, the Planning Board required a complete biodiversity study at the Project Site as part of a previous application from Kirquel Development Ltd. for Site Development and Subdivision for Residences at Mill Court Crossing. *The 2005 biodiversity assessment concluded that no endangered or threatened species were within the Project Site.*

The Town's biodiversity consultant, Stephen Coleman of Environmental Consulting LLC, performed survey work from April through October 2005 for the biodiversity assessment. The ecological communities present at the Project Site included a mature mesophytic lowland forest as defined in the "Biodiversity Assessment Manual for the Hudson River Estuary Corridor" (Kiviat and Stevens, 2001) and a red maple-hardwood swamp as defined in "Ecological Communities of New York State" (Reschke, 1990).

Target groups surveyed included breeding birds, amphibians and reptiles, mammals, and plants. The results of each target grouping are summarized below.

Breeding Birds: The breeding bird study conducted in 2005 for the biodiversity assessment identified a total of 44 different bird species, 10 of which were forest interior species, and approximately 35 of which were summer resident breeding bird species. ***The biodiversity***

assessment in 2005 concluded that the Project Site's ability to support populations of rare and environmentally sensitive forest interior species had been compromised due to surrounding land use. The total bird species count was considered slightly below average for the area.

Amphibians and Reptiles: An amphibian and reptile survey conducted in 2005 for the biodiversity assessment identified 10 species (7 amphibians and 3 reptiles). Most of the amphibian and reptile species observed were considered generalist species with the exception a wood frog and eastern box turtle.

Mammals: A mammal survey conducted in 2005 for the biodiversity assessment identified 11 species, which were all common generalists adaptable to disturbed and fragmented habitats.

Plants: The botanical survey conducted in 2005 for the biodiversity assessment identified 134 different plant species. The biodiversity assessment remarked that the Project Site had relatively low plant species diversity.

The Project Site has remained undeveloped, and therefore wildlife habitat at the Project Site likely remains generally the same since 2005. Based on site observations made by TRC's senior field ecologists during site visits conducted for the wetland delineations, we believe that the plant and wildlife species present at the Project Site have not significantly changed since the biodiversity assessment conducted in 2005 for the Residences at Mill Court Crossing. TRC assumes that comprehensive field surveys for birds, amphibians and reptiles, mammals, and plants, conducted now would not offer any new information not already collected in 2005. The Town Planning Board already has a baseline inventory of biodiversity at the Project Site; therefore, comprehensive field surveys of these taxa would be unnecessary.

3.0 Proposed Assessments and Studies

In order to address the Town's request for CVE North America to evaluate the Project Site's biodiversity, TRC proposes a biodiversity assessment to supplement the original 2005 biodiversity assessment based on observations made during the wetland and waterbody delineation completed by TRC, the preliminary tree survey conducted by TRC, and the tree survey conducted by Bartlett Tree Experts.

TRC proposes to draft a biodiversity assessment report that will include the following:

- A review of publicly available information regarding environmental resources and wildlife species known or reasonably likely to occur at the Project Site including;
    - United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping;
    - NYSDEC Environmental Resource Mapper (ERM);
    - NYSDEC Freshwater Wetlands Mapping;
    - New York State Amphibian and Reptile Atlas Project;

    - New York Nature Explorer;
    - New York Breeding Bird Atlas;
    - U.S. Geological Survey Breeding Bird Surveys;
    - Christmas Bird Counts;
    - Hawk Migration Association of North America;
    - The Cornell Lab of Ornithology eBird; and;
    - Reports and surveys by the Nature Conservancy;

- Results of correspondence with the New York Natural Heritage Program (NYNHP);
- Description of the habitats on-site;
- Dominant vegetation and secondary vegetative communities;
- Habitat connectivity and fragmentation;
- Assessment of habitat quality or condition, including productivity, based on publicly available data;
- Summary of the amount of each type of habitat to be impaired or lost due to Project activity;
- Habitat evaluation of all wetlands and waterbodies on-site;
- Rarity of the habitat;
- Susceptibility of habitat to natural or human-induced disturbance;
- Evaluation of suitability for species of conservation to disturbance;
- List of vegetation present on-site; and
- A comparison of findings with the 2005 biodiversity assessment for the Mill Court Crossing Residential Development.

The following is a summary of wildlife habitat information collected to-date for the Project Site, which will be incorporated into the proposed biodiversity assessment.

The USFWS IPaC Unofficial Species List identifies the Indiana bat as potentially being in vicinity of the Project Site and there is likely suitable summer roosting habitat for the Indiana bat onsite, because the Project Site is forested. The biodiversity assessment will address avoidance and minimization efforts to avoid impacts to Indiana bat.

Additionally, the USFWS IPaC Unofficial Species List identified bog turtle as potentially being near the Project Site. Therefore, TRC will perform a Phase 1 Bog Turtle Habitat Assessment (Phase 1 Survey) for the Project. The Town of Cortlandt's Biodiversity Guidelines references bog turtles and recommends a Phase 1 Bog Turtle Habitat Assessment (Phase 1 Survey) when development is within the vicinity of known occurrence of bog turtles. A Phase 1 Survey would determine if bog turtle habitat is present at the Project Site. The Phase 1 Survey will be conducted in accordance with the USFWS Guidelines for Bog

Turtle Surveys for the Northern Population Range Phase 1 and 2 Surveys, and Supplemental Information (Guidelines) (revised April 29, 2020). Habitat considerations will include hydrology, soils, and vegetation.

The Town of Cortlandt's Biodiversity Assessment guidelines mentions several amphibian species as habitat specialists (e.g., wood frogs and spotted salamanders) that indicate high-quality habitat where impacts should be avoided, minimized, or mitigated. TRC recommends a vernal pool survey during the active breeding season (Spring 2021) to check for potential amphibian habitat. The biodiversity assessment for the Mill Court residential development at the Project Site, completed in 2005, stated that wetlands at the Project Site are suitable breeding grounds for many amphibian species. The Town of Cortlandt's Biodiversity Assessment guidelines also mentions surveying for vernal pools where appropriate.

TRC will perform a Phase 1 Survey and vernal pool survey to determine the potential for the presence of suitable bog turtle habitat and the presence of vernal pool(s) on the Project Site. The purpose of the Phase 1 Survey is to determine whether the wetlands on or near the Project Site are potential bog turtle habitat. The TRC biologists to perform the surveys will be qualified and familiar with conducting vernal pool surveys and Phase 1 Surveys in accordance with the USFWS's bog turtle habitat assessment guidelines. TRC proposes that the field survey work be performed in spring of 2021. The Town's Biodiversity Assessment guidelines state that reptile and amphibian surveys must be conducted between March and October; accordingly, TRC's survey timeframe will meet this guideline.

TRC understands the Town's Consultant would peer review TRC's report and survey results.

4.0 Conclusion

TRC respectfully requests confirmation that the proposed biodiversity assessment and Phase 1 and vernal pool surveys described above will satisfy the Town's recommendation for a biodiversity assessment. If you have questions or would like to discuss this further, please feel free to contact Laura Lefebvre at 512.745.0649 or llefebvre@trccompanies.com.

References:

Kiviat, E. & G. Stevens. 2005. *Biodiversity Assessment Manual for the Huston River Estuary Corridor*. New York State Department of Environmental Conservation, Albany, NY.

Reschke, C. 2014. *Ecological Communities of New York State*. New York Heritage Program, NYS Department of Environmental Conservation, Latham, NY.